

**A. Regarding the amendments.**

Claim 1 has been amended by adding the proviso that when the following three conditions apply: a) the depicted ring is phenyl, and b)  $R_1$  to  $R_5$  and  $R_7$  are each hydrogen and c)  $R_8$  is the formula  $X-CH-Y$ , where  $X$  is benzyl and  $Y$  is  $-CH_2$ -amino, then  $R_6$  is excluded from being benzyl. This proviso is supported in the specification by original claim 2, which is now canceled, and by page 7, lines 1-3, which outlines this proviso.

New claim 43 requires that  $R_6$  be present (i.e., not be hydrogen). The new claim is supported in the specification, for example, at page 6, lines 7-10, which discloses the recited substituents at  $R_6$ . The new claim is also supported by Example I, which discloses the synthesis of numerous compounds within the scope of the new claim.

New claim 44 requires that  $X$  be present (i.e., not be hydrogen). The new claim is supported in the specification, for example, at page 6, lines 24-27, which discloses the recited substituents at the  $X$  position. The new claim is also supported by Example I, which discloses the synthesis of numerous compounds within the scope of the new claim.

New claim 45 excludes nitro at the  $R_3$  position. The new claim is supported in the specification, for example, at page 5, line 8 to page 6, line 6, which discloses the recited substituents at  $R_3$ . The new claim is

also supported by Example I, which discloses the synthesis of numerous compounds within the scope of the new claim. Similarly, new claim 46 excludes nitro at the  $R_1$  to  $R_5$  positions. The new claim is supported in the specification, for example, at page 5, line 8 to page 6, line 6, which discloses the recited substituents at  $R_1$  to  $R_5$ . The new claim is also supported by Example I, which discloses the synthesis of numerous compounds within the scope of the new claim.

Finally, new claim 47 requires that  $n$  be 1 or 2. The new claim is supported in the specification, for example, at page 5, line 7. The new claim is also supported by Example I, which discloses the synthesis of numerous compounds within the scope of the new claim.

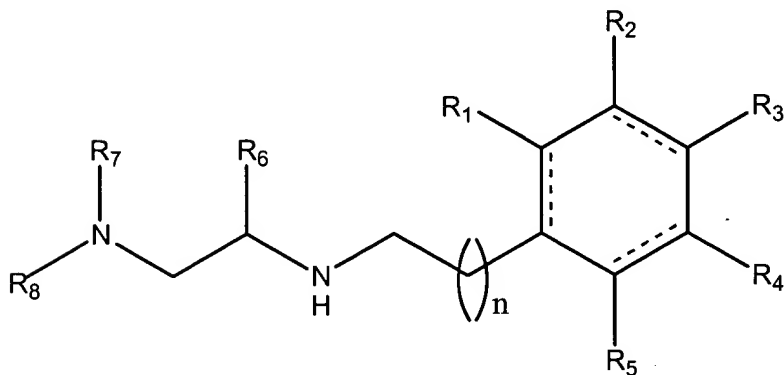
Because the amendments made herein are fully supported by the specification, no issue of new matter arises.

**B. Regarding the restriction requirement.**

**1. Pending claims.**

The Action alleges that claims 2, 6, 9 to 11, 12 and 14 are not directed to the elected species, i.e., that these claims do not read on the elected species. Accordingly, the Action withdraws these claims from examination.

In response, Applicants point out that a number of these claims do read on the elected species and, therefore, should be examined. Specifically, Applicants elected a compound with the formula shown in claim 1,



wherein:

R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>7</sub> are hydrogen;

R<sub>3</sub> is chloro;

R<sub>6</sub> is (4-iodophenyl)methyl;

R<sub>8</sub> is the formula X-CH-Y, wherein the adjoining nitrogen depicted in the formula of claim 1 is directly attached to the carbon atom of the formula X-CH-Y, and wherein:

X is 3-guanidinopropyl; and

Y is aminomethyl; and

n is 1.

With this species election in mind, Applicants point out that claim 2 had the same scope as claim 1, except claim 2 merely carved out a particular compound. Because this carved out compound is not the elected species, claim 2 reads on the elected species and therefore should have been examined. (Applicants note that claim 2 has been canceled herein without prejudice. However, the proviso of claim 2 has been incorporated herein into claim 1. Therefore, claim 1 continues to read on the elected species.)

In addition, pending claim 7 recites the compound of claim 1, where n is 1. As shown above, the species Applicants elected had n as 1. Accordingly, claim 7 reads on the elected species and should be examined. (Applicants note that the body of the Action does not withdraw claim 7, nor does it allow claim 7, nor does it reject claim 7. However, the cover sheet of the Action does withdraw claim 7. In any event, claim 7 should be examined.)

Moreover, pending claim 9 recites (among other groups) C<sub>7</sub> to C<sub>12</sub> substituted phenylalkyl at the R<sub>6</sub> position. As discussed above, Applicants' elected species has (4-iodophenyl)methyl at the R<sub>6</sub> position, which is a substituted phenylalkyl. Accordingly, pending claim 9 reads on the elected species and, therefore, should be examined.

Also, pending claim 11 recites that  $R_7$  is hydrogen and  $R_8$  is the formula  $X-CH-Y$ , where  $X$  can be (among other groups) a substituted alkyl and  $Y$  is the formula  $-(CH_2)_m-Z$ , where  $m$  can be 1 and  $Z$  can be amino. Applicants' elected species has hydrogen at  $R_7$  and the formula  $X-CH-Y$  at  $R_8$ , where  $X$  is 3-guanidinopropyl (a substituted alkyl) and  $Y$  is aminomethyl (corresponding to the formula  $-(CH_2)_m-Z$ , where  $m$  is 1 and  $Z$  is amino). Accordingly, claim 11 reads on the elected species and should be examined.

Finally, pending claim 12 also reads on the elected species. Specifically, claim 12 includes where  $R_1$ ,  $R_2$ ,  $R_4$ ,  $R_5$  and  $R_7$  are hydrogen;  $R_3$  is chloro;  $R_6$  is (4-iodophenyl)methyl;  $R_8$  is the formula  $X-CH-Y$ , wherein the adjoining nitrogen depicted in the formula of claim 1 is directly attached to the carbon atom of the formula  $X-CH-Y$ , and wherein  $X$  is 3-guanidinopropyl and  $Y$  is aminomethyl; and  $n$  is 1.

For all these reasons, Applicants respectfully request that pending claims 1 (as amended herein) 7, 9, 11 and 12 be examined.

## **2. Newly added claims.**

New claims 43 to 47 all read on the elected species and, therefore, should be examined. Specifically, claim 43 requires that  $R_6$  is present (i.e., not hydrogen), and so does the elected species, which has a substituted phenylalkyl at this position. Claim 44 requires that  $X$  is

present (i.e., not hydrogen), and so does the elected species, which has a substituted alkyl at this position. Claims 45 and 46 exclude nitro at various positions, and so does the elected species, which does not have nitro at any position. Finally, claim 47 requires that  $n$  be 1 or 2, and so does the elected species.

For these reasons, new claims 43 to 47 should also be examined.

**C. Regarding the anticipation rejection.**

Claims 1, 3 to 5, 8 and 13 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Abelman et al. (U.S. Pat. No. 5,670,479). Specifically, the Action alleges that the anticipating compound of Abelman is where  $n$  is 1;  $R_1$ ,  $R_2$  and  $R_4$  to  $R_7$  are each hydrogen;  $R_3$  is nitro; and  $R_8$  is the formula  $X-CH-Y$ , where  $X$  is hydrogen and  $Y$  is  $-CH_2-NH_2$ . Applicants respectfully traverse the rejection.

The Examiner has kindly provided a printout of the allegedly anticipating compound. Applicants point out that this compound is where  $n$  is zero (i.e., there is only one methylene between the phenyl ring and the first amino group).

**1. Regarding the pending claims.**

Applicants respectfully assert that Abelman does not teach the compound described in the provided printout. The closest compound taught in Abelman appears to be found in Example 28 (at column 91). However, this compound has a branched amino group closest to the phenyl ring. In contrast, the claimed invention has an unbranched amino at the corresponding position. For this reason, the compound described in Example 28 is not within the scope of any of the claims. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Applicants also respectfully assert that the law requires that "In rejecting a claim for want of novelty . . . , when [the cited] reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied upon must be designated as nearly as practicable." 37 C.F.R. 1.104(c)(2); MPEP sec. 706. The cited reference, Abelman, clearly "describes inventions other than that claimed by applicants," and, at a lengthy 206 columns, Abelman is clearly "complex." However, the Action does not assert "the particular part [of Abelman] relied upon." Accordingly, Applicants respectfully assert that this rejection is improper.

**2. Regarding the new claims.**

Even assuming Abelman teaches the cited compound, which it does not, the new claims added herein are nevertheless novel. Specifically, new claim 43 requires that  $R_6$  be present (i.e., not hydrogen). By contrast, the compound shown in the printout has hydrogen at this position.

In addition, new claim 44 requires that X be present (i.e., not hydrogen). By contrast, the compound shown in the printout must have hydrogen at the X position. Moreover, new claim 45 requires that  $R_3$  not be nitro (with new claim 46 further requiring that  $R_1$  to  $R_5$  not be nitro). By contrast, the compound shown in the printout has nitro at the  $R_3$  position.

Finally, new claim 47 requires that n be 1 or 2. By contrast, as explained above, the compound shown in the printout is where n is zero. Thus, each of new claims 43 to 47 is novel, regardless of whether Abelman teaches the compound shown in the printout.



III. CONCLUSION

In light of the Remarks herein, Applicants respectfully submit that the claims are now in condition for allowance and requests a notice to this effect. Should the Examiner have any questions, he is invited to call the undersigned attorney.

Respectfully submitted,

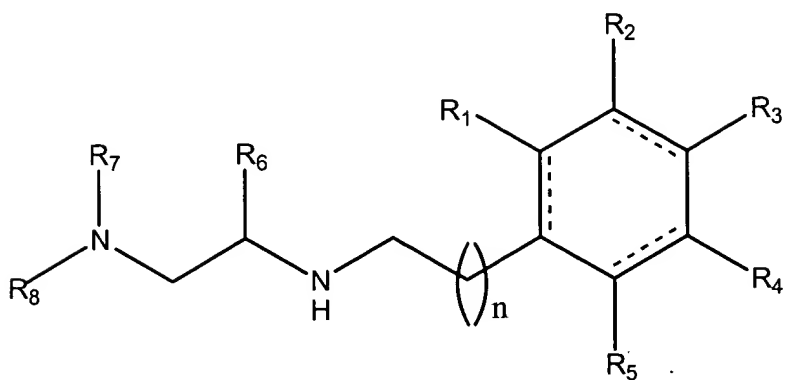
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Amended version

1. (Amended) A compound of the formula:



wherein:

the dotted lines indicate that the depicted ring is selected from the group consisting of phenyl and cyclohexyl;

n is 0, 1 or 2;

R<sub>1</sub> to R<sub>5</sub> are, independently, selected from the group consisting of a hydrogen atom, halo, hydroxy, protected hydroxy, nitro, C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> substituted alkyl, C<sub>7</sub> to C<sub>12</sub> phenylalkyl, C<sub>7</sub> to C<sub>12</sub> substituted phenylalkyl, C<sub>3</sub> to C<sub>7</sub> cycloalkyl, C<sub>3</sub> to C<sub>7</sub> substituted cycloalkyl, C<sub>5</sub> to C<sub>7</sub> cycloalkenyl, C<sub>5</sub> to C<sub>7</sub> substituted cycloalkenyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl, C<sub>1</sub> to C<sub>6</sub>

alkoxy, C<sub>1</sub> to C<sub>6</sub> substituted alkoxy, phenoxy, substituted phenoxy, C<sub>1</sub> to C<sub>6</sub> alkylthio, C<sub>1</sub> to C<sub>6</sub> substituted alkylthio, C<sub>1</sub> to C<sub>6</sub> alkylsulfonyl, C<sub>1</sub> to C<sub>6</sub> substituted alkylsulfonyl, phenylthio, substituted phenylthio, phenylsulfonyl, substituted phenylsulfonyl, amino, protected amino, (monosubstituted)amino, protected (monosubstituted)amino and (disubstituted)amino; and when any one of adjacent position pairs R<sub>1</sub> and R<sub>2</sub>, R<sub>2</sub> and R<sub>3</sub>, and R<sub>3</sub> and R<sub>4</sub> and R<sub>4</sub> and R<sub>5</sub> together form a moiety selected from the group consisting of phenyl, substituted phenyl, heterocycle and substituted heterocycle, said moiety fused to the phenyl ring depicted in the above formula such that a bicyclic ring results;

R<sub>6</sub> is selected from the group consisting of a hydrogen atom, C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> substituted alkyl, C<sub>7</sub> to C<sub>12</sub> phenylalkyl, C<sub>7</sub> to C<sub>12</sub> substituted phenylalkyl, C<sub>11</sub> to C<sub>16</sub> naphthylalkyl and C<sub>11</sub> to C<sub>16</sub> substituted naphthylalkyl;

where R<sub>7</sub> is absent, R<sub>8</sub> together with the attached nitrogen depicted in the above formula form a substituted heterocycle or a substituted cyclic C<sub>3</sub> to C<sub>7</sub> heteroalkylene, wherein at least one of said substitution is the formula - D-E, wherein D may be absent or present and, if present, is selected from the group consisting of C<sub>1</sub> to C<sub>6</sub> alkylene and C<sub>1</sub> to C<sub>6</sub> substituted alkylene; and E is selected from the group consisting of amino, protected amino, (monosubstituted)amino, protected (monosubstituted)amino and (disubstituted)amino group; and

where  $R_7$  is selected from the group consisting of a hydrogen atom,  $C_1$  to  $C_6$  alkyl and  $C_1$  to  $C_6$  substituted alkyl,  $R_8$  is the formula  $X-CH-Y$ , wherein the attached nitrogen depicted in the above formula is attached to the carbon atom of the formula  $X-CH-Y$ , and wherein  $X$  is selected from the group consisting of a hydrogen atom,  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  substituted alkyl,  $C_7$  to  $C_{12}$  phenylalkyl,  $C_7$  to  $C_{12}$  substituted phenylalkyl, phenyl, substituted phenyl, naphthyl and substituted naphthyl, and  $Y$  is the formula  $-(CH_2)_n-Z$ , wherein  $n$  is 1 to 6 and  $Z$  is selected from the group consisting of amino, protected amino, (monosubstituted)amino, protected (monosubstituted)amino and (disubstituted)amino;

wherein, when a) the depicted ring is phenyl, and b)  $R_1$  to  $R_5$  and  $R_7$  are each hydrogen and c)  $R_8$  is the formula  $X-CH-Y$ , where  $X$  is benzyl and  $Y$  is  $-CH_2$ -amino, then  $R_6$  is not benzyl; or

a pharmaceutically-acceptable salt thereof.